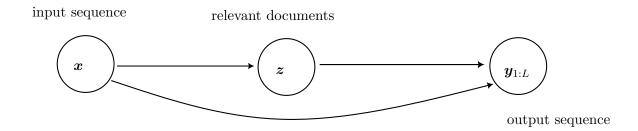
Title

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$$\begin{split} \mathsf{Pr}\left(\boldsymbol{y}_{1:L} \mid \boldsymbol{x}\right) &= \sum_{\boldsymbol{z}} \mathsf{Pr}\left(\boldsymbol{y}_{1:L}, \boldsymbol{z} \mid \boldsymbol{x}\right) \\ &= \sum_{\boldsymbol{z}} \mathsf{Pr}\left(\boldsymbol{y}_{1:L} \mid \boldsymbol{z}, \boldsymbol{x}\right) \mathsf{Pr}\left(\boldsymbol{z} \mid \boldsymbol{x}\right) \\ &\approx \sum_{\mathrm{top \; K} \; \boldsymbol{z}' \mathsf{s} \sim \mathsf{Pr}\left(\boldsymbol{z} \mid \boldsymbol{x}\right)} \mathsf{Pr}\left(\boldsymbol{y}_{1:L} \mid \boldsymbol{z}, \boldsymbol{x}\right) \mathsf{Pr}\left(\boldsymbol{z} \mid \boldsymbol{x}\right) \\ &= \sum_{\mathrm{top \; K} \; \boldsymbol{z}' \mathsf{s} \sim \mathsf{Pr}\left(\boldsymbol{z} \mid \boldsymbol{x}\right)} \prod_{i=1}^{L} \mathsf{Pr}\left(\boldsymbol{y}_{i} \mid \boldsymbol{z}, \boldsymbol{x}, \boldsymbol{y}_{1:i-1}\right) \mathsf{Pr}\left(\boldsymbol{z} \mid \boldsymbol{x}\right) \end{split}$$

$$egin{aligned} \mathsf{Pr}\left(oldsymbol{y}_{1:L} \mid oldsymbol{x}
ight) &= \prod_{i=1}^{L} \mathsf{Pr}\left(oldsymbol{y}_{i} \mid oldsymbol{y}_{1:i-1}, oldsymbol{x}
ight) \ &= \prod_{i=1}^{L} \sum_{oldsymbol{z}} \mathsf{Pr}\left(oldsymbol{y}_{i} \mid oldsymbol{y}_{1:i-1}, oldsymbol{z}, oldsymbol{x}
ight) \mathsf{Pr}\left(oldsymbol{z} \mid oldsymbol{x}
ight) \ &pprox \prod_{i=1}^{L} \sum_{\mathrm{top-k}} \mathsf{Pr}\left(oldsymbol{y}_{i} \mid oldsymbol{y}_{1:i-1}, oldsymbol{z}, oldsymbol{x}
ight) \mathsf{Pr}\left(oldsymbol{z} \mid oldsymbol{x}
ight) \end{aligned}$$

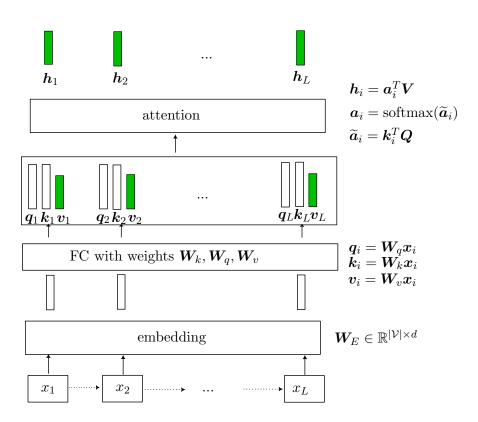


Figure 0.1: abd